

## **REMARKS**

### **Application Status**

### **Specification & Drawings**

Applicants initially wish to thank the Examiner for the indication that all prior objections to the specification and drawings have withdrawn.

### **Claims**

Claims 1-6 and 7-12 are pending in the application after amendment herein.

Claims 5-6 were objected to but indicated to be allowable if rewritten in independent form.

Claims 1-4 were rejected.

Claims 1-2 are amended herein

Claims 7-12 are newly added herein.

Claims 1 and 7 are independent claims.

### **Rejection of Claims under 35 USC 103(a)**

Claims 1 was rejected under 35 USC 103(a) as unpatentable over Scholefield et al (USPN 5,742,592, herein "Scholefield") in view of Garcia-Luna-Aceves (US 2002/0167960 A1, herein "Garcia"). With respect to claim 1, the Office asserts that Scholefield teaches a method comprising portions of steps a, b and c of the claimed method. The Office acknowledges that Scholefield fails to teach selecting in a manner which is independent of timeslot selections made by other nodes of the network. However, the Office asserts that Garcia teaches selecting in a manner which is independent of timeslot selections made by other nodes of the network; the Office asserts that Garcia [0030] teaches "nodes admit new nodes for quasi-static scheduling independently of one another" for the purpose of "allowing a new node to start using the time slots ... after it receives routing messages from some or all of its neighbors."

In the 'Response to Arguments' of the current Office Action, the Office asserts that Garcia [0087] teaches time slots of the quasi-static schedule are assigned to nodes

based simply on the identifiers of other nodes, i.e., not based on timeslot selections made by other nodes, and that although the timeslot selections are expected to be the same for each node in the steady state [0094], Garcia teaches asynchronous scheduling by each node assuming new quasi-static schedule immediately after receiving an updated node list causing different node to have different timeslot selections. [0094]. Thus, the Office alleges Garcia teaches scheduling timeslots in a manner which is independent of timeslot selections made by other node and that claim 1 is obvious over Scholefield in view of Garcia.

Applicant traverses this rejection and respectfully submits that Scholefield and Garcia, whether considered individually or in combination, fail to disclose, teach or suggest each and every limitation recited by amended claim 1. Amended claim 1 recites, in part, selecting at least one timeslot of the cycle in a manner which is independent of timeslot selections to be made by other existing receiving nodes of the network for receipt of burst transmissions. As the specification describes, applicant discovered that a TWIN network subject to distributed scheduling can support useful levels of throughput, even without coordination among the source nodes. [0006]. In described in the specification, each destination node makes timeslot assignments in such a way that no two sources are scheduled for burst arrivals at the destination within the same timeslot. Thus, collisions between arriving bursts at the destination are avoided. [0008]. At a receiving node and in response to a scheduling request, at least one timeslot of the cycle is selected in a manner which is independent of timeslot selections made by other nodes of the network for receipt of burst transmissions. [0007].

Each node able to function as a destination for optical bursts is equipped with a distributed scheduler. [0017]. The distributed schedulers not communicate with each other. Typically, each distributed scheduler receives traffic information only in the timeslot requests issued to it by its requesting source nodes. [0023]. When Destination receives a request, it check the state of all the timeslots in its scheduling cycle (emphasis added). [0027]. Applicant respectfully submits that the cited references fail to teach or suggest selecting a timeslot in a manner independent of timeslot selections to be made by other existing receiving nodes.

First, the Office acknowledges that Scholefield fails to teach or suggest selecting in a manner which is independent of timeslot selections made by other nodes of the network. Second, Garcia fails to teach or suggest teach selecting in a manner which is independent of timeslot selections to be made by other existing receiving nodes of the network. In sharp contrast to the claimed invention, Garcia explains that 'to use the time slots allocated for quasi-static scheduling, a node simply orders the IDs of the nodes known to belong to the known network membership list and maps them in an ordered manner to the time slots reserved for quasi-static scheduling. In steady state, all nodes that have been admitted into the [[network]] assign the same time slot to the same node ID, because all of them have the same list of admitted network nodes and all nodes used the same starting point (i.e., slot 1) for the allocation of nodes to slots in quasi-static scheduling.' Garcia [0031].

While asynchronous scheduling may occur in the quasi-static state since only a subset of the entire number of existing nodes may have an updated admitted nodes list, the timeslot selection performed by the subset of existing nodes is not independent of the timeslot selection to be performed prospectively by the other existing nodes of the network. That is; the round robin timeslot selection based on the list of admitted network nodes taught by Garcia is timeslot selection which depends upon the timeslot selection to be made by other nodes of the network, whether all nodes in the network currently have an update admitted node list or not. The admitted network nodes list and round robin timeslot selection taught by Garcia is a proxy for timeslot selections to be made by all nodes, whether all those nodes are already updated with the newest admitted node list (i.e., steady-state) or only a subset of all of the nodes have been updated with the newest admitted node list (i.e. quasi-static state). Thus, assignment of timeslots among nodes of the network is coordinated and such a timeslot allocation scheme is not 'in a manner independent of timeslot selections to be made by other existing nodes of the network' as recited by claim 1. Accordingly, applicant respectfully submits that claim 1 is

distinguishable from Scholefield and Garcia whether considered separately or in combination and thus, patentable over these references. Withdrawal of the rejection and allowance of claim 1 is requested.

Claim 2 was rejected as obvious over Scholefield in view of Garcia and further in view of Peterson (US 6,301,262). Claims 3 and 4 were rejected as obvious over Scholefield in view of Garcia and further in view of Padovani et al. (US 6,574,211) and Dail et al (US 5,570,335).

Claims 2, 3, 4 and 6 depend from and include all the limitations of base claim 1. Accordingly, Applicant submits these claims are patentable over Scholefield and Garcia based on claim dependency and for at least the reasons above stated.

Based on the above remarks and the amendments to the claims, applicants submit that the claims have been shown to be allowable in view of the prior art and that the basis for any rejections has been overcome.

#### **New claims**

New claims 7-12 are presented to recite various aspects of the disclosed invention. Support for the new claims is found throughout the specification and in particular can be found at Figures 3-4 and in [0007], [0017], [0023] and [0027]; no new matter is added to the application with the addition of these new claims. For reasons somewhat similar to those stated above, the Applicant respectfully submits that Scholefield and Garcia, whether considered individually or in combination, fail to disclose, teach or suggest each and every limitation recited by independent claim 7. Specifically, independent claim 7 recites, in part, "selecting a first timeslot of the cycle in response to the scheduling request, wherein the first timeslot is selected in a manner which is independent of timeslot selections to be made by the others of the plurality of receiving nodes for receipt of burst transmissions." Scholefield and/or Garcia fail to disclose or suggest this claim feature and thus it is submitted that the claim is allowable.

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Claims 8-12 depend from and include all the limitations of base claim 7. Accordingly, Applicant submits these claims are patentable based at least on claim dependency.

**Conclusion**

In view of the foregoing, allowance of all the claims presently in the application is respectfully requested, as is passage to issuance of the application. If the Examiner should feel that the application is not yet in a condition for allowance and that a telephone interview would be useful, he is invited to contact Applicants' undersigned attorney.

Respectfully submitted,

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